

REMARKS

By this amendment, Applicants amend claims 58, 60, 63, 66-68, 70-82, 87-94, 99-101, 103, 106, 109-111, 113-125, 130-137, and 142-145 to more appropriately define the claimed subject matter. Applicants also amend claims 145-147 to correct informalities. Claims 1-13, 15, 17-45, 48-60, 62-103, and 105-149 are pending in this application.

Applicants respectfully traverse the rejection of claims 58-60, 62-70, 72-82, 88, 94-98, 101-103, 105-113, 115-125, 131, 137-141, 144, and 145 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 4,739,510 to Jeffers et al. (“*Jeffers et al.*”).

Jeffers et al. fails to disclose each and every element recited in independent claim 58, from which claims 59, 60, 62-70, 72-82, 88, and 94-98 depend. For example, *Jeffers et al.* does not disclose a receiving method comprising, inter alia, “receiving said radio broadcast signal and said additional information,” “in which acquiring information necessary to acquire music content data related to this radio broadcast signal is disposed,” as recited in amended claim 58.

Instead, *Jeffers et al.* teaches, “generating a broadcast signal having active video signal portions and horizontal blanking portions. [An] audio signal and a data stream are generated and inserted into the horizontal blanking portions. The data stream includes a header portion...” (Col. 5, lines 38-46.) “The second block of the header packet contains information concerning the impulse pay-per-view transaction data. The first 16 bits include a program identification tag which identifies the particular program being broadcast.” (Col. 17, lines 40-44.) “The sync information, program-related information, and impulse pay-per-view information in the header (applicable to all

receiving units) is captured and stored in the memory under control of the decoder microprocessor" (col. 22, lines 47-51). "[T]he decoder stores every impulse pay-per-view usage by tag number, date of month, hour, and minute" (col. 15, lines 23-25).

In the Office Action, the Examiner apparently relied on the "broadcast signal" of *Jeffers et al.* as the "broadcast signal" recited in claim 58 before amendment (Office Action, pg. 2, paragraph 5). The Examiner further relied on the "header" of *Jeffers et al.* as the "additional information" of claim 58, and the "tag number" of *Jeffers et al.* as the "acquiring information" of claim 58 (Office Action, pg. 2, paragraph 5 to pg. 3, paragraph 1). Although the Examiner failed to expressly specify where *Jeffers et al.* contains any teaching or suggestion of the "related data" of claim 58 before amendment, it appears that the Examiner may have relied on the "audio signal" of *Jeffers et al.* as the "related data."

However, the broadcast signal of *Jeffers et al.* is not a "radio broadcast signal," as recited in amended claim 58. Rather, the broadcast signal of *Jeffers et al.* is a "distributed composite television signal" that has horizontal blanking intervals in which digitized audio and control signals are inserted (Abstract; emphasis added). A television broadcast signal does not constitute a "radio broadcast signal," as required by claim 58 (emphasis added).

Moreover, the audio signal of *Jeffers et al.*, which is inserted in the horizontal blanking intervals of the television signal, is not disclosed to be "music content data," as required by amended claim 58 (emphasis added). Rather, the audio signal of *Jeffers et al.* apparently contains an audio track for a television program. An audio track for a

television program does not necessarily constitute “music content data,” as recited in claim 58.

Thus, *Jeffers et al.* fails to disclose “receiving said radio broadcast signal and said additional information,” “in which acquiring information necessary to acquire music content data related to this radio broadcast signal is disposed,” as recited in amended claim 58.

Independent claims 101, 144, and 145, although of different scope, recite elements similar to those recited in claim 58, and for reasons substantially similar to those explained above in relation to claim 58, are also allowable over *Jeffers et al.* under § 102(b). Claims 102, 103, 105-113, 115-125, 131, and 137-141 are also allowable over *Jeffers et al.* under § 102(b), for at least the reason that these claims depend from claim 101.

Applicants respectfully traverse the rejection of claims 1-9, 11-13, 15, 17-20, 22-31, 33-41, 43-45, 48-57, 83-87, 89-93, 99, 100, 126-130, 132-136, 142, and 143 under 35 U.S.C. § 103(a) as unpatentable over *Jeffers et al.* in view of U.S. Patent No. 4,230,990 to Lert, Jr. et al. (“*Lert et al.*”).

Jeffers et al. fails to teach or suggest each and every element recited in independent claim 1, from which claims 2-9, 11-13, 15, 17-20, 22-31, and 33 depend. For example, *Jeffers et al.* does not teach or suggest a transmitting method comprising, inter alia, “constructing said additional information in which ... a second signal [is] disposed, wherein said broadcast signal comprises said second signal superimposed on a first signal,” as recited in claim 1.

The Examiner relied on the “broadcast signal” of *Jeffers et al.* as the “broadcast signal” recited in claim 1 (Office Action, pg. 10, paragraph 2). In this rejection, the Examiner further relied on the “audio signal” of *Jeffers et al.* as the “second signal” of claim 1, and on the combination of the “audio signal” and “data stream” of *Jeffers et al.* as the “additional information” of claim 1 (Office Action, pg. 10, paragraph 3).

The Examiner acknowledged that “*Jeffers et al.* does not disclose the additional information includes an audio (second) signal” (Office Action, pg. 10, paragraph 5). The Examiner relied on *Lert et al.* to make up for these deficiencies. However, *Lert et al.* fails to make up for the deficiencies of *Jeffers et al.* because *Lert et al.* also does not teach or suggest “constructing said additional information in which ... a second signal [is] disposed, wherein said broadcast signal comprises said second signal superimposed on a first signal,” as recited in claim 1.

Lert et al. teaches, “monitoring equipment detects cue signals broadcast by a monitored station and, upon detection, samples the broadcast program signal at the same predetermined location with respect to the detected cue and uses the same feature extraction process to create a broadcast signature of unknown program identity. By comparing broadcast signatures to reference signatures, a computer identifies the broadcasts of programs whose reference signatures have been stored in memory.” (Col. 6, lines 32-40).

In the Office Action, the Examiner argued, “*Lert, Jr. et al.* discloses an audio signal known as a cue signal ... which is used to identify the broadcast signal ... [I]t would have been obvious ... to modify the broadcast method of *Jeffers et al.* with the insertion of the cue signal of *Lert, Jr et al.* in broadcast related data such as a program

header since Lert, Jr et al. states the cue signal allows for an enormous reduction in the amount of data processing required in order to access program (broadcast) related information.” (Pg. 10, paragraph 6 to pg. 11, paragraph 1).

However, assuming *arguendo* that the cue signal of *Lert et al.* were inserted into the header of *Jeffers et al.* as suggested by the Examiner, this combination would nevertheless fail to constitute a “broadcast signal [that] comprises said second signal superimposed on a first signal,” as required by claim 1 (emphasis added). For example, even in the Examiner’s suggested combination, the broadcast signal of *Jeffers et al.* would still not include the cue signal of *Lert et al.* because the broadcast signal of *Jeffers et al.* does not include the header of *Jeffers et al.* Thus, *Jeffers et al.* and *Lert et al.* fail to teach or suggest, alone or in combination, “constructing said additional information in which ... a second signal [is] disposed, wherein said broadcast signal comprises said second signal superimposed on a first signal,” as recited in claim 1.

In addition, one of ordinary skill would not derive any suggestion or motivation, from the references themselves or the general knowledge available to one of ordinary skill in the art, to insert the cue signal from *Lert et al.* into the header of *Jeffers et al.*, as suggested by the Examiner. The header of *Jeffers et al.* already includes “a program identification tag which identifies the particular program being broadcast” (*Jeffers et al.*, col. 17, lines 42-44; emphasis added). As one of ordinary skill would have understood, the method of identifying program broadcasts that is taught by *Lert et al.* serves a redundant purpose with that of the program identification tag of *Jeffers et al.* One of ordinary skill would understand that including the redundant cue signal in the header, as suggested by the Examiner, would therefore waste transmission bandwidth.

While *Lert et al.* apparently teaches that “selective extraction processing” “represents an enormous reduction in the amount of data processing required” when compared to “continuous extraction processing” (col. 6, lines 50-55), this teaching also fails to provide any suggestion or motivation to derive the Examiner’s combination because the program identification tag of *Jeffers et al.* is not based on the “continuous extraction processing” being compared in *Lert et al.* Therefore, there would not have been any suggestion or motivation to combine *Jeffers et al.* and *Lert et al.* in the manner that the Examiner suggests.

Thus, claim 1 and claims 2-9, 11-13, 15, 17-20, 22-31, and 33 dependent therefrom are allowable over *Jeffers et al.* and *Lert et al.*

For reasons substantially similar to those explained above in relation to claim 1, independent claim 34 is allowable over *Jeffers et al.* and *Lert et al.* Claims 35-41, 43-45, and 48-57 are also allowable over *Jeffers et al.* and *Lert et al.*, for at least the reason that these claims depend from claim 34.

Claims 59, 60, 62-70, and 72-100 are allowable over *Jeffers et al.* and *Lert et al.* for at least the reason that these claims depend from independent claim 58. As explained above, *Jeffers et al.* does not teach or suggest each and every element of claim 58. *Lert et al.* fails to make up for the deficiencies of *Jeffers et al.* because *Lert et al.* is silent on the matter of “receiving said radio broadcast signal and said additional information,” “in which acquiring information necessary to acquire music content data related to this radio broadcast signal is disposed,” as recited in claim 58, and the Examiner did not rely on *Lert et al.* to teach or suggest these claimed features.

Claims 102, 103, 105-113, and 115-143 are also allowable over *Jeffers et al.* and *Lert et al.* for at least the reason that these claims depend from independent claim 101. For reasons substantially similar to those explained above in relation to claim 58, independent claim 101 is allowable over *Jeffers et al.* and *Lert et al.*

Applicants respectfully traverse the rejection of claims 71, 114, 148, and 149 under 35 U.S.C. § 103(a) as unpatentable over *Jeffers et al.* in view of U.S. Patent No. 5,274,815 to Trissel et al. ("*Trissel et al.*").

Claim 71 is allowable over *Jeffers et al.* and *Trissel et al.* for at least the reason that claim 71 depends from independent claim 58. As explained above, *Jeffers et al.* does not teach "receiving said radio broadcast signal and said additional information," "in which acquiring information necessary to acquire music content data related to this radio broadcast signal is disposed," as recited in claim 58 and required by claim 71. *Jeffers et al.* also contained no suggestion of these claim limitations.

Trissel et al. fails to make up for the deficiencies of *Jeffers et al.* because *Trissel et al.* is silent on the matter of "receiving said radio broadcast signal and said additional information," "in which acquiring information necessary to acquire music content data related to this radio broadcast signal is disposed," as recited in claim 58, and the Examiner did not rely on *Trissel et al.* for any teaching or suggestion of these claim limitations.

Claim 114 is allowable over *Jeffers et al.* and *Trissel et al.* for at least the reason that claim 114 depends from independent claim 101. For reasons substantially similar to those explained above in relation to claim 58, independent claim 101 is allowable over *Jeffers et al.* and *Trissel et al.*

Independent claims 148 and 149 are allowable over *Jeffers et al.* because *Jeffers et al.* fails to teach or suggest “receiving a predetermined broadcast signal and predetermined additional information, said predetermined additional information including acquiring information necessary to acquire data related to said broadcast signal ... wherein said related data is a computer program when said broadcast signal is video data or audio data obtained by executing said computer program,” as recited in these claims.

The Examiner stated that “*Jeffers et al.* and *Lert, Jr et al.* [*sic*] disclose all the limitations ... (see rejection of claim 58) except the related data is a computer program when the broadcast signal is video data or audio data obtained by executing the computer program” (Office Action, pg. 22, paragraph 5). The Examiner relied on *Trissel et al.* to make up for the deficiencies of *Jeffers et al.*

However, *Trissel et al.* does not make up for the deficiencies of *Jeffers et al.* because *Trissel et al.* also fails to teach or suggest either “receiving ... acquiring information necessary to acquire ... a computer program” or that “said broadcast signal is video data or audio data obtained by executing said computer program,” as required by claims 148 and 149.

At the section cited by the Examiner, *Trissel et al.* teaches, “[c]omputer programmers and computer users always desire to have quick and efficient flexibility, control, and data gathering ability of commercial software, internally or personally developed software packages, and other forms of computer code. To achieve flexibility and control of software, computer programmers and users have proliferated the use of compiler options in computer code for altering a computer program, computer hardware

exceptions and break points, and software simulations. All of these techniques are used to give a programmer and/or a user flexibility during program execution ..." (Col. 1, lines 11-22.)

None of the techniques taught or suggested by *Trissel et al.* constitutes "receiving ... acquiring information necessary to acquire ... a computer program." *Trissel et al.* also does not teach or suggest that "said broadcast signal is video data or audio data obtained by executing said computer program," as required by claims 148 and 149. For example, neither compiler options, computer hardware exceptions, break points, nor software simulations constitute either "receiving ... acquiring information necessary to acquire ... a computer program" or result in a "broadcast signal [that] is video data or audio data obtained by executing said computer program," as recited in these claims.

Furthermore, the teaching of "flexibility" in *Trissel et al.* is not a teaching or suggestion of either "receiving ... acquiring information necessary to acquire ... a computer program" or that "said broadcast signal is video data or audio data obtained by executing said computer program," as required by claims 148 and 149 (emphasis added). Thus, *Trissel et al.* also fails to teach or suggest these limitations of claims 148 and 149.

Applicants respectfully traverse the rejection of claims 10, 42, 146, and 147 under 35 U.S.C. § 103(a) as unpatentable over *Jeffers et al.* in view of *Lert et al.*, and further in view of *Trissel et al.*

Claim 10 is allowable over *Jeffers et al.*, *Lert et al.*, and *Trissel et al.* for at least the reason that claim 10 depends from independent claim 1. As explained above,

Jeffers et al. and *Lert et al.* do not teach or suggest “constructing said additional information in which acquiring information necessary to acquire related data related to said broadcast signal and a second signal are disposed, wherein said broadcast signal comprises said second signal superimposed on a first signal,” as recited in claim 1.

Trissel et al. does not make up for the deficiencies of *Jeffers et al.* and *Lert et al.* because *Trissel et al.* is silent on the matter of “constructing said additional information in which acquiring information necessary to acquire related data related to said broadcast signal and a second signal are disposed, wherein said broadcast signal comprises said second signal superimposed on a first signal,” as recited in claim 1, and the Examiner did not rely on *Trissel et al.* for any teaching or suggestion of these claim limitations.

Claim 42 is allowable over *Jeffers et al.*, *Lert et al.*, and *Trissel et al.* for at least the reason that claim 42 depends from independent claim 34, which is allowable over these references for reasons substantially similar to those explained above in relation to claim 1.

Independent claims 146 and 147 are allowable over *Jeffers et al.* and *Lert et al.* because *Jeffers et al.* and *Lert et al.* do not teach or suggest each and every element recited in this claim. For example, *Jeffers et al.* and *Lert et al.* fail to teach or suggest “constructing predetermined additional information which includes acquiring information necessary to acquire data related to a predetermined broadcast signal ... [and] transmitting said predetermined additional information ..., wherein said related data is a computer program when said broadcast signal is video data or audio data obtained by executing said computer program,” as recited in claim 146.

As acknowledged by the Examiner, “Jeffers et al. and Lert, Jr et al. [*sic*] disclose all the limitations ... (see rejection of claim 1) except the related data is a computer program when the broadcast signal is video data or audio data obtained by executing the computer program” (Office Action, pg. 23, paragraph 3). The Examiner relied on *Trissel et al.* to make up for the deficiencies of *Jeffers et al.* and *Lert et al.*

Trissel et al. fails to make up for the deficiencies of *Jeffers et al.* and *Lert et al.* because *Trissel et al.* also does not teach or suggest either “transmitting said predetermined additional information,” which includes acquiring information necessary to acquire a computer program, or that “said broadcast signal is video data or audio data obtained by executing said computer program,” as recited in claims 146 and 147. None of the techniques taught or suggested by *Trissel et al.* constitute “transmitting said predetermined additional information,” which includes acquiring information necessary to acquire a computer program, or result in a “broadcast signal [that] is video data or audio data obtained by executing said computer program.” The teaching of “flexibility” in *Trissel et al.* is also not a teaching or suggestion of either “transmitting said predetermined additional information,” which includes acquiring information necessary to acquire a computer program, or that “said broadcast signal is video data or audio data obtained by executing said computer program,” as required by claims 146 and 147. Thus, *Trissel et al.* also fails to teach or suggest either “transmitting said predetermined additional information,” which includes acquiring information necessary to acquire a computer program, or that “said broadcast signal is video data or audio data obtained by executing said computer program,” as recited in claims 146 and 147.

Applicants respectfully traverse the rejection of claim 32 under 35 U.S.C. § 103(a) as unpatentable over *Jeffers et al.* in view of *Lert et al.*, and further in view of U.S. Patent No. 5,777,997 to Kahn et al. ("*Kahn et al.*").

Claim 32 is allowable over *Jeffers et al.*, *Lert et al.*, and *Kahn et al.* for at least the reason that claim 32 depends from independent claim 1. As explained above, *Jeffers et al.* and *Lert et al.* do not teach or suggest "constructing said additional information in which acquiring information necessary to acquire related data related to said broadcast signal and a second signal are disposed, wherein said broadcast signal comprises said second signal superimposed on a first signal," as recited in claim 1.

Kahn et al. fails to make up for the deficiencies of *Jeffers et al.* and *Lert et al.* because *Kahn et al.* is silent on the matter of "constructing said additional information in which acquiring information necessary to acquire related data related to said broadcast signal and a second signal are disposed, wherein said broadcast signal comprises said second signal superimposed on a first signal," as recited in claim 1, and the Examiner did not rely on *Kahn et al.* to teach or suggest these claim limitations.

CONCLUSION

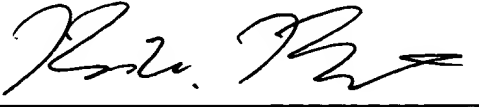
In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account No. 06-0916.

Respectfully submitted,

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